We claim:-

1. A process for preparing a multimetal oxide material M of the stoichiometry I

$$Mo_1V_aM^1_bM^2_cM^3_dO_n \qquad (I),$$

where

M^1 is at least one of the elements from the group consisting of Te and Sb;

M^2 is at least one of the elements from the group consisting of Nb, Ti, W, Ta and Ce;

M^3 is at least one of the elements from the group consisting of Pb, Ni, Co, Bi, Pd, Ag, Pt, Cu, Au, Ga, Zn, Sn, In, Re, Ir, Sm, Sc, Y, Pr, Nd and Tb;

a is from 0.01 to 1,

b is from > 0 to 1,

c is from > 0 to 1,

d is from > 0 to 0.5 and

n is a number which is determined by the valency and frequency of the elements other than oxygen in (I),

whose X-ray diffraction pattern has reflections h, i and k whose peaks are at the diffraction angles (2θ) 22.2 ± 0.5° (h), 27.3 ± 0.5° (i) and 28.2 ± 0.5° (k),

- the reflection h being the one with the strongest intensity within the X-ray diffraction pattern and having a full width at half height (FWHH) of not more than 0.5°,

- the intensity P_i of the reflection i and the intensity P_k of the reflection k satisfying the relationship $0.65 \leq R \leq 0.85$, where R is the intensity ratio defined by the formula

$$R = P_i / (P_i + P_k)$$

and

- the FWHH of the reflection i and that of the reflection k being each ≤ 1°,

but has no reflection having the peak position $2\ominus = 50.0 \pm 0.3°$,

in which first such a multimetal oxide material M is prepared with the proviso that, in the course of the preparation of this multimetal oxide material M, no precursor multimetal oxide material of this multimetal oxide material M is washed with a liquid from the group consisting of organic acids, inorganic acids, solutions of organic acids, solutions of inorganic acids, solutions of inorganic acids and mixtures of the abovementioned group members, and wherein the multimetal oxide material M initially prepared in this manner is washed with a liquid from the group consisting of organic acids, inorganic acids, solutions of organic acids, solutions of inorganic acids and mixtures of the abovementioned group members.

2. A process as claimed in claim 1, wherein the liquid with which washing is effected is an aqueous nitric acid solution.

3. A process as claimed in claim 1, wherein the X-ray diffraction pattern of the multimetal oxide material M to be washed contains, in addition to the reflections h, i and k, also further reflections whose peaks are at the following diffraction angles $2\ominus$:

$9.0 \pm\pm 0.4°$ (l),
$6.7 \pm 0.4°$ (o) and
$7.9 \pm 0.4°$ (p).

4. A process as claimed in claim 3, wherein the X-ray diffraction pattern of the multimetal oxide material M to be washed contains, in addition to the reflections h, i, k, l, o and p, also further reflections whose peaks are at the following diffraction angles $2\ominus$:

$45.2 \pm 0.4°$ (q),
$29.2 \pm 0.4°$ (m) and
$35.4 \pm 0.4°$ (n).

5. A process as claimed in claim 4, wherein the X-ray diffraction pattern of the multimetal oxide material M to be washed has the reflections h, k, l, m, n, o, p and q on the same intensity scale with the following intensities:

h = 100,
i = 5 to 95,

l = 1 to 30,
m = 1 to 40,
n = 1 to 40,
o = 1 to 30,
p = 1 to 30 and
q = 5 to 60.

6. A process as claimed in any of claims 1 to 5, wherein the stoichiometric coefficients a, b, c and d of the multimetal oxide material M to be washed are simultaneously in the following ranges:

a = from 0.05 to 6;
b = from 0.01 to 1;
c = from 0.01 to 1; and
d = from 0.00005 to 0.5

7. A process as claimed in any of claims 1 to 6, wherein m^1 = Te.

8. A process as claimed in any of claims 1 to 7, wherein at least 50 mol% of the total amount of M^2 is Nb.

9. A process as claimed in any of claims 6 to 8, wherein M^3 is at least one element from the group consisting of Ni, Co, Pd and Bi.

10. A process as claimed in any of claims 1 to 9, wherein the preparation of the multimetal oxide material M to be washed is effected by a hydrothermal method.

11. A process for the heterogeneously catalyzed gas-phase partial oxidation and/or ammoxidation of a saturated and/or unsaturated hydrocarbon, wherein the catalytically active material used is the direct product of a process as claimed in any of claims 1 to 10.